

**IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF MISSISSIPPI
EASTERN DIVISION**

CARIBBEAN UTILITIES COMPANY, LTD.

PLAINTIFF

V.

CIVIL ACTION NO. 2:17-cv-00179-KS-MTP

**HOWARD INDUSTRIES, INC., a Mississippi
profit corporation,**

DEFENDANT

MEMORANDUM OPINION AND ORDER

This cause came before the Court on Plaintiff's Motion to Exclude or Limit the Testimony of Defendant's Engineering Expert, Dr. Eric P. Guyer [110]. The motion has been fully briefed [119, 138]. Having reviewed the parties' submissions, the relevant legal authority and otherwise being fully advised in the premises, the Court finds that the motion will be denied.

I. BACKGROUND

Plaintiff, Caribbean Utilities Company, Ltd. ("CUC") is an electric utility company located in the Cayman Islands. This case arises from electrical transformers manufactured by the Defendant, Howard Industries, Inc. ("Howard"), which CUC alleges are defective. At issue presently is expert testimony provided by Howard's expert, Dr. Eric P. Guyer, Ph.D., P.E., an engineer who specializes in failure analysis, metallurgy, materials science, adhesion science, fracture and fatigue of materials, material degradation, and material deformation, as well as paints and protective coatings. [110-9] at p. 1. Dr. Guyer and his company (Exponent) visited CUC's facility in the Cayman Islands and observed several hundred of the transformers that had been removed from service at that time, which were being stored in steel shipping containers. [110-9] at p. 6. He also toured Howard's plant in 2019. [110-9] at p. 31. He has reviewed testing performed by Applied Technical Services [110-9] at pp. 20-29, and throughout his report has offered rebuttal to CUC's expert reports.

CUC moves the Court to exclude or limit Dr. Guyer's testimony because CUC contends his opinions are unreliable, irrelevant, not based on proper methodology, unfairly prejudicial, speculative and not supported by sufficient facts and because he is not qualified to render certain opinions he has expressed.

II. ANALYSIS

A. Legal Standard

Federal Rule of Evidence 702 states that a witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise

[i]f scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based on sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

The Rule imposes on the trial judge an obligation to “ensure that all [expert] testimony . . . is not only relevant, but reliable.” *Kuhmo Tire Co. v. Carmichael*, 526 U.S. 137, 147 (1999); *see also Watkins v. Telsmith, Inc.*, 121 F.3d 984, 988-989 (5th Cir. 1997) (“[W]hen expert testimony is offered, the trial judge. Must perform a screening to ensure that the expert's opinion is reliable and relevant to the facts at issue in the case.”).

B. Discussion

More specifically than previously stated, CUC contends that Dr. Guyer should be precluded from testifying as follows:

1) to the effect that the Howard transformers were not contaminated with iron; CUC submits various pieces of evidence in support of its arguments; and

2) that Howard's phosphating process removed any iron contamination from the transformers;

3) as to any opinions regarding the maintenance of the transformers because he is not qualified;

4) as to any opinion that the transformers corroded because of deficient specifications and lack of maintenance;

5) as to his opinion to the effect that there was no basis for CUC's decision to remove all pole-mounted transformers from service based on safety concerns;

6) any opinion regarding Dr. Mehrooz Zamanzadeh's risk assessment; and

7) as to his opinion that there was no widespread paint delamination.

Howard opposes the motion and offers a declaration from Dr. Guyer. As a preliminary matter, the Court notes that it has not considered the declaration of Dr. Eric Guyer in ruling on this motion, as it apparently has not been properly disclosed as a supplemental report. The Court has considered only Dr. Guyer's report as written and the deposition testimony objected to by CUC on the grounds raised by CUC in its motion, as well as Howard's arguments that do not rely upon the declaration.

1. Dr. Guyer's opinion that the Howard transformers were not contaminated with iron

CUC first seeks to preclude Dr. Guyer from testifying that the Howard transformers were not contaminated with iron. CUC first explains that its own expert has determined that there is stress corrosion cracking (SCC) on the transformers and that the SCC was caused in part by iron that was imbedded on or around the welds during the fabrication process. CUC then points to various concessions by Dr. Guyer—namely that the presence of iron contamination on the surface of stainless steel can cause and exacerbate SCC; Howard manufactured the stainless steel

transformers¹ on the same production lines and using the same equipment as was used for the fabrication of mild (or carbon) steel transformers; and that the use of the same equipment can cause problems and is a well known source of iron contamination in stainless steel fabrication. Given those concessions, CUC states that Dr. Guyer opined that the Howard transformers were not contaminated with iron and that he should not be allowed to so testify.

Howard argues that Dr. Guyer does not opine, nor does he testify, that iron contamination was definitively not present only that he finds there is no evidence of it, or in other words, the evidence he has seen does not support the conclusion that iron contamination occurred on the units that Howard supplied to CUC. [110-2] at 240:5-10; 265:7-10. CUC responds in rebuttal that it is a distinction without a difference. Even if it equates to an opinion that there is no free iron present, and while an internal report from Howard may have “conceded” that there was iron present at the welds, the Court is not willing to preclude Howard from having its expert opine to the contrary in litigation. Any challenge to the underlying bases for those opinions goes to the weight not the admissibility.

The Court further finds that Dr. Guyer is more than qualified to evaluate evidence of coating failures. He explains fully in his report why he finds no evidence of such based on his visual observations, despite the fact that CUC’s experts have conducted tests, which they contend, show conclusively that there is free iron contamination present. Dr. Guyer disputes such findings based on his education, training, and experience with ferroxyl testing and his criticism that such testing creates false positives and is insufficient in distinguishing between free iron contamination and iron oxide or rust.

¹ There is no dispute that all of the Howard transformers supplied to CUC were made of stainless steel.

CUC also argues that Dr. Guyer's opinions are not admissible because he did not do any scientific testing. While that appears to be the case, one with his experience can opine about what would "normally be seen" if iron contamination were present and that is a matter that the fact-finder may properly consider when assessing whether iron contamination is indeed what led to the SCC. Dr. Guyer's methodology in stating that the evidence does not support iron contamination appears to be visual examination and criticism of the testing used by CUC's experts. Given that CUC takes no issue with his qualifications on these two points, any criticism on that methodology affects the weight to be assigned to Dr. Guyer's opinions rather than their admissibility and should be left for the jury's consideration. *See Graham v. All Am. Cargo Elevator*, No. 1:12-CV-58-HSO-RHW, 2013 WL 5216529, at *3 (S.D. Miss. Sept. 16, 2013).

Based on the foregoing, the Court finds that Dr. Guyer's assessment of the evidence regarding the presence of free iron contamination is admissible, and CUC's motion on this point is denied.

2. Dr. Guyer's testimony that Howard's phosphating process removed any iron contamination from the transformers

As a part of the prior argument, CUC argues that rather than testing for iron contamination, Dr. Guyer arrives at his "no iron contamination" theory by surmising that any iron deposited on the transformers during fabrication must have been removed when the units were treated with a phosphate conversion coating prior to painting. [11] at p. 7-8. Howard counters that CUC mistakenly suggests that Dr. Guyer's opinion that there is no evidence of iron contamination is related to the phosphate pretreatment process used by Howard, but the two are not related. Again, there appears to be a disconnect in the characterization of the testimony. Howard explains that the phosphate pretreatment process goes to the issue of adhesion of the coatings, which CUC posits was inadequate. Indeed, in his report, Dr. Guyer states, "The purpose

of the conversion coating in this context on stainless steel is to promote adhesion of subsequent coating layers.” [110-9] at p. 36. ATS performed two tests to look at the strength of the adhesion of the coating, one of which found that there was a layer of phosphate conversion coating at the interface between the stainless steel substrate and the outer powder coating layer. [110-9] at p. 36. Given CUC’s theory that free iron contamination was present and due to Dr. Guyer’s underlying opinion that the data supported strong adhesion,² Dr. Guyer’s deduced, based on his visual observation and his interpretation of the ATS data, that the phosphate coating system may have been successful in removing any iron contamination that would have kept the outer coat from adhering properly. Therefore, the Court finds the testimony both reliable and relevant, and CUC’s motion on this issue is denied without prejudice to CUC challenging the bases of the opinion on cross-examination.

3. Dr. Guyer’s opinions regarding the maintenance of the transformers

CUC next argues that Dr. Guyer should be precluded from opining that CUC’s maintenance of the transformers was inadequate because he is not qualified to so opine.³ CUC points out that Dr. Guyer has never testified regarding maintenance of coatings on stainless steel transformers or any maintenance programs regarding same, has not written any articles on the subject and has never developed any guidelines. Finally, CUC complains that Dr. Guyer could not identify the minimum amount of maintenance requirements he would expect to see in any maintenance guidelines for the transformers and has no opinion as to whether Howard should have developed any maintenance instructions for the transformers. [111] at pp. 11-12.

² The fact that this testimony goes to the weight and not the admissibility is further bolstered by the fact that during a visit to CUC in September 2018, Spectrum (CUC’s expert/Dr. Cornelissen) and Exponent (Howard’s expert/Dr. Guyer) identified transformers to be tested by the third party laboratory, ATS. [110-9] at p. 20; [114-5] at p. 9. Analyzing the same set of data, each expert arrived at different conclusions.

Of course, Howard counters that Dr. Guyer is “robustly qualified” to opine that CUC should have done maintenance on its transformers, and the Court agrees. Simply because he has not specifically testified on this particular subject or written any articles on the issue, Dr. Guyer is not automatically unqualified. *See United States v. Wen Chyu Liu*, 716 F.3d 159, 167 (5th Cir. 2013) (“[I]t is an abuse of discretion for a trial court to exclude expert witness testimony on the ground that the witness is not qualified to render the opinion at issue because the witness lacks a certain educational or other experiential background.”).

The Court must “gauge whether the witness's qualifying training or experience, and resultant specialized knowledge, are sufficiently related to the issues and evidence before the trier of fact that the witness's proposed testimony will help the trier of fact.” *Id.* (internal quotations admitted). Dr. Guyer specializes in failure analysis, metallurgy, materials science, adhesion science, fracture and fatigue of materials, material degradation, and material deformation, as well as paints and protective coatings. He has both a masters (2003) and a Ph.D. (2004) in materials science and engineering from Stanford University. [110-9] at p. 1; Appx. A. He is a certified coatings inspector and “regularly conducts analysis of various paint and protective coating systems applied to a wide variety of steel, aluminum” *Id.* at Appx. A. He has been a college professor and has taught the courses “Failure Analysis of Emerging Technologies” and “Fracture and Fatigue of Materials.”

Based on his education and experience, the Court finds it axiomatic that he would be qualified to opine about the adequacy of the maintenance performed on the transformers and whether it could have contributed to any coatings failures. While Dr. Guyer may not specialize in “maintenance of coatings,” such a lack of specialization does not affect the admissibility but only

³ This is the second of the four overarching opinions Dr. Guyer offers. [110-9] at p. 3.

the weight of the opinion. *See Wen Chyu Liu*, 716 F.3d at 168-169. Therefore, CUC's motion on this issue is denied.

4. Dr. Guyer's opinion that the transformers corroded because of deficient specifications and lack of maintenance

CUC argues that Dr. Guyer has opined that the root cause of the corrosion is deficient specifications and lack of maintenance and such opinion should be excluded because it is not reliable. CUC seems to argue that because Dr. Guyer's opinion that iron contamination does not exist has no basis in fact, this particular opinion is not reliable because Dr. Guyer has failed to account for obvious iron contamination.

The Court finds that Dr. Guyer did account for iron contamination and discounted it as explained above. The Court has found that Dr. Guyer may testify as to his opinion that he found no evidence of iron contamination, and it appears the specifications/maintenance opinions to which CUC takes issue are set forth as Opinions 1 and 2 in Dr. Guyer's report.⁴ These opinions are fully set forth in the report, and the Court finds they are based on sufficient facts and adequately reliable. [110-9] at pp. 32-41. Therefore, CUC's motion in this regard is denied.

5. Dr. Guyer's opinion to the effect that there was no basis for CUC's decision to remove all pole-mounted transformers from service based on safety concerns

In his report, Dr. Guyer's third opinion is that "[t]here is no basis for CUC to remove all pole-mounted transformers from service; numerous transformers exhibited little-to-no signs of corrosion or cracking." CUC claims that this opinion is unreliable because Dr. Guyer conceded that stress corrosion cracking can cause a transformer to leak and/or catastrophically fail and fall from its utility pole. However, the testimony cited actually states as follows:

Q: Can stress corrosion cracking lead to catastrophic failure as you've described it?

⁴ The deposition testimony cited does not provide a clear record of what that opinion is. See [110-2] at 25:7-24.

A: It – certainly if there is [sic] cracks that go through the hanging brackets, then that could—the transformer could come down.

Section 4.2.2 of his report addresses the corrosion and cracking of transformers, and Section 4.3 addresses transformers with fractured hanging brackets. [110-9] at pp. 25, 30. Dr. Guyer found that “Expo 33,” which was fabricated in 1992, was the only transformer that exhibited evidence of cracking in the welding region and the only transformer examined⁵ that exhibited cracks in the hanging brackets. *Id.* at p. 25. Also, Dr. Guyer also states that as of the time of his report, Exponent was aware of only two transformers that have exhibited fractured hanging brackets—Expo 33 and another identified in CUC’s documentation. Further, on page 42 of his report, Dr. Guyer provides the bases for his opinion regarding the removal of *all* transformers.

Because Dr. Guyer did not concede that the mere presence of stress corrosion cracking alone causes catastrophic failure, but could lead to it, and because he has adequately set forth the bases for his opinion, any testimony as to how many of the transformers currently have SCC or the absence of fracture mechanics testing is not relevant. The testimony cited regarding what level of cracking is acceptable goes to the weight and not the admissibility of his opinion in this regard. CUC argues that Dr. Guyer’s admission that it is up to CUC to determine whether the risk is acceptable “invalidates” his opinion. [111] at p. 15. While it may undermine his opinion, it does not make it inadmissible.

Finally, CUC argues that Dr. Guyer’s testimony should be excluded under Rule 403 because it would prejudice CUC by confusing and misleading the jury into accepting his opinion that CUC should not have removed the transformers. The Court finds that Dr. Guyer’s opinion is

⁵ There were 11 transformers chosen for further evaluation. [110-9] at p. 25.

not confusing or unduly prejudicial. The Court finds it is adequately based on his observations and testing, and although he cannot identify what level of risk is acceptable—he has not offered an opinion in that regard, only that he found no basis for removing all transformers at this time because he has found no widespread cracking of the mounting brackets, which is the area that is susceptible to “catastrophic failure.” A jury can understand that opinion. While CUC will undoubtedly attempt to undermine that opinion as it did in deposition, it will be up to the jury as to what it accepts and what it disregards. Therefore, CUC’s motion in this regard is denied.

6. Any opinions regarding Dr. Mehrooz Zamanzadeh’s risk assessment

Next, CUC contends that Dr. Guyer’s criticism that CUC’s expert did not perform “a true risk assessment in the traditional sense” should be excluded because he is not qualified to opine on risk assessment. For the same reasons set forth in the section above addressing “maintenance,” the Court finds that Dr. Guyer is sufficiently qualified to offer criticism of the risk assessment performed. Accordingly, CUC’s motion in this regard is denied.

7. Dr. Guyer’s opinions regarding the lack of widespread paint delamination

Finally, CUC argues that Dr. Guyer’s opinion that there was not a widespread problem of paint adhesion on the transformers should be excluded because paint peeling off the transformers is within the understanding of an average person and because his opinion regarding the “phosphate conversion process” used by Howard is based on an incorrect assumption. This opinion is the fourth and final overarching opinion given by Dr. Guyer in his report, and the basis for that opinion is set forth on pages 46-47 of the report. The Court denies CUC’s motion in this regard as well.

As to the issue of paint adhesion being within the understanding of an average person, Dr. Guyer’s opinion is not simply providing a definition of delamination. The opinion is that

delamination is not widespread. Thus, while the juror sitting at trial may know what peeling paint is, that juror did not observe hundreds of transformers. Dr. Guyer's opinion on this issue is based on his personal observations and the ATS adhesion testing done. The Court finds expert testimony in this regard is proper and in this case the bases therefor are sufficient.

As for the "phosphate conversion process," CUC relies on the testimony of a representative of Henkel, the manufacturer of the chemical solution used by Howard, who testified that their products do not provide phosphate conversion coatings on Type 304 stainless steel. Dr. Guyer concluded it was present based on scientific testing performed by ATS. Thus, preliminary the Court finds that Dr. Guyer has presented a sufficient basis for his opinion and any attempt to undermine that basis goes to the weight not the admissibility. Even if Henkel testified in that regard, the Court cannot accept that testimony as true for purposes of excluding expert testimony. It will be up to the jury to determine whether the Henkel representative's testimony is true, and if so, how that undermines Dr. Guyer's opinion. Therefore, CUC's motion in this regard is denied.

III. CONCLUSION

For the reasons stated herein, the Court finds that the opinions stated by Dr. Eric Guyer are both relevant and reliable and that he is qualified to opine as to each. Therefore, it is hereby ORDERED that Plaintiff's Motion to Exclude or Limit the Testimony of Defendant's Engineering Expert, Dr. Eric P. Guyer [110] is denied.

SO ORDERED AND ADJUDGED this 12th day of November 2019.

/s/ Keith Starrett
KEITH STARRETT
UNITED STATES DISTRICT JUDGE